REMARKS/ARGUMENTS

Claims 1, 3, 24, and 26-32 were pending in this application. According to the Advisory Action of August 23, 2004, these claims stand rejected. Applicants have amended claim 1, 26-28, and 30. Accordingly, claims 1, 3, 24, and 26-32 are under consideration. Applicants maintain that the amendments do not add any new matter.

Previously presented independent claim 1 recited in part:

> an opaque optical shielding layer disposed to lie between the insulating substrate layer and the active polysilicon layer; wherein ... the opaque shielding layer also functions as a black matrix for said display.

In the Final Rejection dated April 9, 2004, the Examiner rejected claim 1 as unpatentable, 35 U.S.C 102(e), in view of Sera, patent 6,559,913, May 6, 2003 (hereinafter Sera). In particular, the Examiner argued that Sera teaches in Figures 1 and 2 an LCD display that includes an insulating substrate 1, a polysilicon layer 5 on top of the substrate, and an "underneath light-shielding film" 3 between the substrate and the polysilicon layer. As for the "black matrix" function, the Examiner further argued in the Advisory Action that this term, as recited by claim 1, is considered by those of ordinary skill in the art to be synonymous to "light blocking layer," a function the "underneath light shielding film" 3 of Sera performs. As a basis for this interpretation of "black martix", the Examiner noted U.S. patent 6,002,463 by Fujikawa (hereinafter Fujikawa) and text book, "Handbook of Display Technology", by Joseph Castellano (hereinafter Castellano).

Significantly, as noted in both Fujikawa and Castellano, those of ordinary skill in the art would also consider a black matrix to be a mask that resides over a circuitry layer (i.e., TFTs) and that is intended to provide a function of preventing light from leaking between pixels (see, e.g., Fujikawa, column 1, lines 24-30 and Castellano, page 259, last paragraph). Applicants' invention is directed at an opaque optical shielding layer beneath a polysilicon layer that both shields the polysilicon layer from light and also functions to block light from leaking between

adjacent pixels, thereby moving a function of the black matrix to this shielding layer. As such, because applicants' invention moves this light leakage function of the black matrix to the opaque optical shielding layer, applicants' invention removes the black matrix from the LCD. Accordingly, applicants have amended claim 1 to further clarify their invention and to now recite in part:

> an opaque optical shielding layer disposed to lie between the insulating substrate layer and the active polysilicon layer; wherein the opaque shielding layer shields the polysilicon layer from light incident upon the insulating substrate layer and functions to block the incident light from leaking between adjacent pixels; [and] wherein the optical element does not include a shield above the circuitry layer that functions to block the incident light from leaking between adjacent pixels

Significantly, while the "underneath light-shielding film" 3 of Sera appears to shield a polysilicon layer from light, similar to applicants' invention, Sera fails to teach or suggest that this light-shielding film also functions to block light from leaking between adjacent pixels. As significant, Sera continues to teach the use of a black matrix 12 over the circuitry layer (i.e., TFTs). Again, those of ordinary skill in the art would consider this black matrix to function as a shield that blocks light from leaking between pixels. In fact, as seen in Figure 1(b) of Sera, "underneath light-shielding film" 3 continues to pass light coming from the backside of the LCD, which light is subsequently blocked by black matrix 12. As such, the presence of black matrix 12 is also contrary to claim 1. As important, Sera fails to suggest that black matrix 12 be removed from the structure because Sera is concerned with using this matrix to shield the TFTs from light coming from the top side of the LCD. Accordingly, Sera fails to teach or suggest amended claim 1, and also claims 3 and 24-30, which depend therefrom.

In the Final Rejection, the Examiner also rejected previously presented claims 26 and 27, which depend from amended claim 1, as unpatentable, 35 U.S.C 103(a), over Sera in view of Shinohara et al., patent 6,292,246, September 18, 2001 (hereinafter Shinohara). Sera and Shinohara, alone or in combination, fail to teach or suggest amended claim 1. Accordingly,

claims 26 and 27 are also novel and nonobvious in view of the cited art for the same reasons as above.

Since Sera and Shinohara do not teach or suggest, alone or in combination, applicants' invention as now set forth in amended claims 1, 3, 24, and 26-32 , applicants submit that these claims are clearly allowable. Favorable reconsideration and allowance of these claims are therefore requested.

Applicants earnestly believe that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner deems it would in any way facilitate the prosecution of this application, he is invited to telephone applicants' counsel at the number given below.

EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail to Addressee (mail label #EV342536552US) in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, Alexandria, VA 22313-1450, on January 5, 2005:

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